



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
097503,760	02/14/00	STONE	116100S02

IM62/0321
McAndrews, Held & Malloy, LTd
500 West Madison Street, 34th Floor
Chicago IL 60661

EXAMINER
ZITOMER, F

ART UNIT	PAPER NUMBER
1713	12

DATE MAILED: 03/21/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/503,760

Applicant(s)
Stone et al.

Examiner
Fred Zitomer

Group Art Unit
1713



☒ Responsive to communication(s) filed on Jan 3, 2001

☒ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-63 is/are pending in the application.

Of the above, claim(s) 3-5, 7-17, 19, 21, 23, 25-28, and 31-63 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1, 2, 6, 18, 20, 22, 24, 29, and 30 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 11

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1713

1.

This responds to the communication of Jan 3, 2001. The rejection of record of claim 30 under 35 U.S.C. 112, second paragraph, is withdrawn in view of applicant's arguments. The rejection of record of claims 1,2,6,18,20,22,24,29 and 30 under 35 U.S.C. 103(a) over D'Agostino et al. is maintained as stated below. No claim is allowed.

2.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3.

Claims 1,2,6,18,20,22,24,29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over D'Agostino et al., US 4,012,303.

D'Agostino teaches membranes of the present polymer base grafted with monomer units of present formula (I) absent non-hydrogen substituents "A₁" and "A₂" [column 3, line 25 - column 4, line 37]. The membranes are precursors for ion exchange membranes [Abstract]. D'Agostino differs from the instant invention by lacking a graft monomer wherein at least one of "A₁" or "A₂" is other than hydrogen. More directly, applicant's elected species wherein A₁ is methyl and A₂ is hydrogen differs from D'Agostino merely by a methylene group. This is analogous to a homologous relationship wherein a class of progressive structures vary by incremental methylene groups. It is well settled that absent the showing of criticality it is obvious to expect homologs to possess similar physical and chemical properties in keeping with their closely related structures.

Art Unit: 1713

In re Farkas, 152 USPO 109; *In re Henze*, 850 USPO 261; *In re Hoch*, 166 USPO 406; *In re Finley*, 810 USPO 383; *In re Hoke*, 195 USPO 148; *In re Archer*, 734 OG 545; *In re Wood*, 199 USPO 137. It would have been obvious to prepare membranes of the present composition in the expectation of obtaining precursors for electrochemical cell membranes because membranes of closely related structure were known to have the required properties at the time of the instant invention.

Applicant's arguments filed January 3, 2001 have been fully considered but they are not persuasive. The essence of said arguments is that criticality has been shown for the present membranes in the way of faster grafting rates than would be predicted by known art. This is an interesting supposition, however, it is not compelling for at least the following reasons:

- the present claims are drawn to a product. It is not clear how the reaction rate of one of the starting materials, *i.e.* a process variable, impacts the patentability of the resultant product. In this regard it is well settled that the patentability of a product rests with the actual product formed as opposed to the method by which it is formed and that applicant has the burden of establishing an unobvious difference over the reference product. *In re Marosi*, 218 USPQ 289; *In re Thorpe*, 227 USPQ 964.

- assuming *arguendo* that the rate of grafting does impact patentability this record is conspicuously absent a meaningful head-to-head comparison of the grafting rates of trifluorostyrene and methyl substituted trifluorostyrene *per se* wherein all conditions are identical except for the grafting monomer.

Art Unit: 1713

- it is well known to those of ordinary skill in the art that the reactivity of aromatic compounds in general and the rate of grafting specifically are functions of ring substitution. More directly, ring substitution is a discretionary variable commonly used to optimize reactivity. In this regard it has been held that a result oriented variable implemented within the skill of the art to solve a known problem in a known process is obvious absent the showing of a new or unexpected result. *In re Boesch*, 205 USPQ 215.

The key point remains that nothing on this record in evidentiary form shows an unexpected result for methyl substituted trifluorostyrene grafted membranes against unsubstituted trifluorostyrene grafted membranes.

4.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

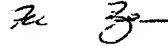
Art Unit: 1713

5.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Zitomer whose telephone number is (703) 308-2461. The examiner can normally be reached Monday through Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful David Wu can be reached at (703) 308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2351.



FRED ZITOMER, PHD
PRIMARY EXAMINER
ART UNIT 1713

Zitomer/fz
March 20, 2001